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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,622	08/11/2003	Mao-Lin Huang	MR1891-186	2094

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EXAMINER	
BECK, DAVID THOMAS	

ART UNIT	PAPER NUMBER
1732	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/637,622	HUANG, MAO-LIN	
	Examiner	Art Unit	
	David T. Beck	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jablonsky (2,155,375).

With regard to claim 1, Jablonsky teaches a method for manufacturing a three-dimensional molded blade (page 1, column 1, line 2), comprising a press molding process including: providing a shaping mold having a top formed with a three-dimensional cavity (figure 3, number 8); placing a molded layer in the shaping mold and located above the cavity (figure 3, number 9); inserting a press mold into the shaping mold (figure 3, number 7); and heat pressing the molded layer between the press mold and the shaping mold during a period of time (page 2, column 1, lines 28-32), thereby forming a three-dimensional molded layer in the cavity of the shaping mold (figure 4).

With regard to claim 2, Jablonsky teaches the molded blade comprises a three-dimensional molded layer, and a substrate mounted on a bottom of the molded layer (figure 2).

With regard to claim 8, Jablonsky teaches removing the three-dimensional molded layer from the cavity of the shaping mold; and bonding the three-dimensional

molded layer on a substrate, so that the three-dimensional molded layer is combined with the substrate integrally (page 2, column 2, lines 1-3).

With regard to claim 9, Jablonsky teaches cutting the rim of combination of the three-dimensional molded layer and the substrate, thereby forming a three-dimensional molded blade (page 2, column 1, lines 65-74).

With regard to claim 10, Jablonsky teaches that the molded layer forms an arch-shaped structure on the surface of the substrate (figure 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jablonsky (2,155,375) in view of Johnson (3,470,291).

With regard to claim 3, Jablonsky teaches the invention of claim 1 as discussed above but does not explicitly teach that the shaping mold is made of a flexible material. Johnson teaches that the shaping mold is made of a flexible material (column 3, lines 44-46). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the shaping mold in the process of Jablonsky out of flexible material. The motivation to do so would have been to shape the plastic sheet under tensile stress in order to increase the strength of the outer edges and corners of the article (Johnson, column 3, lines 42-53).

With regard to claim 4, Jablonsky teaches the invention of claim 1 as discussed above but does not explicitly teach that the shaping mold is made of rubber. Johnson teaches that the shaping mold is made of rubber (column 4, lines 64-65). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the shaping mold in the process of Jablonsky out of rubber. The motivation to do so would have been to shape the plastic sheet under tensile stress in order to increase the strength of the outer edges and corners of the article (Johnson, column 3, lines 42-53).

With regard to claim 5, Jablonsky teaches the invention of claim 1 as discussed above but does not explicitly teach that the shaping mold is heated to the temperature of 180 degrees C. Johnson teaches that the shaping mold temperature may range from room temperature to the upper working temperature limit for the polymer being formed (column 8, lines 19-28). Johnson defines the upper working temperature limit as being below the melting point for crystalline polymers (column 7, lines 62-63). Furthermore, Johnson teaches that the tool temperature is a result effective variable that directly influences the dwell time requirement (column 8, lines 19-22). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to heat the shaping mold to a temperature of 180 degrees C in the process taught by Jablonsky, since it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regard to claim 6, Jablonsky teaches the invention of claim 1 as discussed

above but does not explicitly teach that the press mold is heated to the temperature of 100 degrees C. Johnson teaches that the shaping mold temperature may range from room temperature to the upper working temperature limit for the polymer being formed (column 8, lines 19-28). Johnson defines the upper working temperature limit as being below the melting point for crystalline polymers (column 7, lines 62-63). Furthermore, Johnson teaches that the tool temperature is a result effective variable that directly influences the dwell time requirement (column 8, lines 19-22). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to heat the press mold to a temperature of 100 degrees C in the process taught by Jablonsky, since it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With regard to claim 7, Jablonsky teaches the invention of claim 1 as discussed above but does not explicitly teach that the molded layer is heat pressed between the press mold and the shaping mold during about three minutes. Johnson teaches that the time required for pressing in the mold is a result effective variable that depends on the thickness and temperature of the sheet (column 3, lines 19-30). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to press the molded layer for three minutes in the process taught by Jablonsky, since it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Beck whose telephone number is 571-272-2942. The examiner can normally be reached on Monday - Friday, 8AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 517-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DTB
May 5, 2005
DTB

MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER